

# CANADIAN JOURNAL OF MICROBIOLOGY, VOLUME 14 (1968)

## Author Index

Under each name are listed, in chronological order of publication, all articles in which an author has participated.

- Agnihotri, V. P.**  
Effects of nitrogenous compounds on sclerotium formation in *Aspergillus niger*. V. P. Agnihotri, 1253.
- Airth, R. L.**  
Repression of thiaminase I by thiamine and related compounds in *Bacillus thiaminolyticus*. L. Wang, J. H. Wilkins, and R. L. Airth, 1143.
- Al-Doory, Y.**  
Studies on the pathogenicity of *Candida albicans* isolated from baboon. Y. Al-Doory, 443.
- Ali Khan, Z.**  
Serological characterization of  $\gamma$ M (19 S) and  $\gamma$ G (7 S) rabbit antibodies in response to *Entamoeba histolytica* antigens. Z. Ali Khan and E. Meerovitch, 1317.
- Allen, S. D.**  
The temperature optimum of the intestinal flora of the rat. S. D. Allen and T. D. Brock, 699.
- Altenbern, R. A.**  
Studies on the synthesis of staphylococcal alpha toxin. C. W. Hendricks and R. A. Altenbern, 1277.
- Anderson, R. J.**  
Microscopic colonial morphology of an enterococcal L form. R. J. Anderson, 746.
- Applegarth, D. A.**  
The cell wall of *Penicillium roquefortii*. D. A. Applegarth and G. Bozoian, 489.
- Arikawa, S.**  
"Steady-state" competence for bacterial transformation. H. H. Eichhorn, S. Arikawa, and S. Zamenhof, 290.
- Aubé, C.**  
Formation of endospores in *Verticillium albo-atrum* (R. & B.). C. Aubé and G. Pelletier, 606.
- Augustin, J.**  
The metabolic activity of the protoplasts and normal cells of *Saccharomyces cerevisiae* and the effect of inhibitors. L. Drobnica, J. Augustin, A. Svoboda, and O. Nečas, 853.
- Barabás, Gy.**  
Role of streptomycin in the life of *Streptomyces griseus*: streptidine-containing fractions in the cell walls of *Streptomyces griseus* strains. Gy. Barabás and G. Szabó, 1325.
- Barrera, C. R.**  
Isolation and purification of the D(-)  $\beta$ -hydroxybutyric dehydrogenase of *Azotobacter vinelandii*. P. Jurtshuk, S. Manning, and C. R. Barrera, 775.
- Barrett, B.**  
Mycobacterial antibody response in experimentally infected animals. J. Carriere, R. Wallace, B. Barrett, and B. B. Dena, 923.
- Basu, S. N.**  
Mechanism of decomposition of jute and cellulose by a *Corticium* species. B. L. Ghosh, R. G. Bose, and S. N. Basu, 459.
- Bather, R.**  
Variation in susceptibility of chick embryo tissues to infection with Rous Sarcoma virus in vitro. R. Bather, A. Wong, and P. R. Sweeny, 1164.
- Batterton, J. C.**  
Phosphorus deficiency and phosphate uptake in the blue-green alga *Anacystis nidulans*. J. C. Batterton and C. Van Baalen, 341.
- Benns, G.**  
Spheroplasts of enteropathogenic *Escherichia coli*. II. Immunogenicity of spheroplast vaccines. B. B. Dena, R. Wallace, G. Benns, and L. Greenberg, 679.
- Berk, R. S.**  
Microbial growth on mercaptosuccinic acid. M. R. Hall and R. S. Berk, 515.
- Bernheim, F.**  
A comparison between the effects of a surfactant (chenodeoxycholine) and freezing and thawing on some properties of the membrane of *Pseudomonas aeruginosa*. F. Bernheim, 281.
- Blachère, H.**  
Identité immunochimique de certains polysaccharides extracellulaires chez diverses espèces de *Rhizobium*. I. Polysaccharides extracellulaires solubles de *Rhizobium meliloti*. C. Faily et H. Blachère, 247.
- Black, C. H.**  
Use of normal probability paper in determining thermal melting values of deoxyribonucleic acid. M. D. Knittel, C. H. Black, W. E. Sandine, and D. K. Fraser, 239.

- Blank, F.**  
Metabolites of pathogenic fungi. VI. The isolation of 5-thiomethyladenosine from *Candida albicans*. C. Pace-Asciak, G. Just, and F. Blank, 90.
- Bobo, R. A.**  
Lipids of cell walls of *Pseudomonas aeruginosa* and *Brucella abortus*. R. A. Bobo and R. G. Eagon, 503.
- Bordeleau, L. M.**  
Exigences en sels minéraux de *Corynebacterium sepedonicum* (Spiek. & Kott.) Skapt. & Burkh. L. M. Bordeleau et R.-A. Lachance, 467.  
Effets des purines et des pyrimidines sur la croissance de *Corynebacterium sepedonicum* (Spiek. & Kott.) Skapt. & Burkh. L. M. Bordeleau et R.-A. Lachance, 475.
- Bose, R. G.**  
Mechanism of decomposition of jute and cellulose by a *Corticium* species. B. L. Ghosh, R. G. Bose, and S. N. Basu, 459.
- Boudreault, A.**  
Caractères biologiques de souches du virus de l'influenza adaptées à 29 °C et à 41 °C. A. Boudreault, G. Lussier et V. Pavilanis, 867.
- Bouillant, A.**  
Histoenzymatic activities of three KB cell lines latently infected by *Myxovirus parainfluenzae*, type 3, strain EA-102. I. Aminopeptidase activity. A. Bouillant and P. Daniel, 971.  
Histoenzymatic activities of three KB cell lines latently infected by *Myxovirus parainfluenzae*, type 3, strain EA-102. II. Hydrolytic and oxidative enzyme activity. A. Bouillant and P. Daniel, 975.
- Bozoian, G.**  
The cell wall of *Penicillium roquefortii*. D. A. Applegarth and G. Bozoian, 489.
- Bradley, T. J.**  
A reversible inhibition of the germination of bacterial spores. M. S. Parker and T. J. Bradley, 745.
- Brailsford, M. D.**  
Characterization of *Streptococcus durans* bacteriophages. M. D. Brailsford and P. A. Hartman, 397.
- Braun, J. L.**  
A method for isolating leptospires from natural surface waters. J. L. Braun, S. L. Diesch, and W. F. McCulloch, 1011.
- Brewer, D.**  
The production of cochliodinol and a related metabolite by *Chaetomium* species. D. Brewer, W. A. Jerram, and A. Taylor, 861.
- Brock, T. D.**  
The temperature optimum of the intestinal flora of the rat. S. D. Allen and T. D. Brock, 699.
- Brown, E. R.**  
An immunologic comparison of five murine leukemia viruses grown in tissue culture. E. R. Brown, S. R. Rohlfing, and S. O. Schwartz, 1347.
- Brown, J. P.**  
Ultrastructure and sites of tetranitro-blue tetrazolium reduction of *Lactobacillus casei*. J. P. Brown, M. R. Edwards, and P. J. VanDemark, 823.  
Respiration of *Lactobacillus casei*. J. P. Brown and P. J. VanDemark, 829.
- Buck, J. D.**  
A nutritional study of some agarolytic marine bacteria. A. E. Girard, J. D. Buck, and B. J. Cosenza, 1193.
- Bungay, H. R.**  
A microbial interaction involving combined mutualism and inhibition. H. T. Yeoh, H. R. Bungay, and N. R. Krieg, 491.
- Burkholder, P. R.**  
Some patterns of B vitamin requirements among neritic marine bacteria. P. R. Burkholder and S. Lewis, 537.
- Caltrider, P. G.**  
β-Lactamase activity of *Escherichia intermedia*. F. M. Huber, P. G. Caltrider, and S. Noble, 349.
- Campbell, J. J. R.**  
Absence of storage products in cultures of *Pseudomonas aeruginosa* grown with excess carbon or nitrogen. R. M. MacKelvie, J. J. R. Campbell, and A. F. Gronlund, 627.  
Influence of cold-shock on the endogenous metabolism of *Pseudomonas aeruginosa*. R. M. MacKelvie, A. F. Gronlund, and J. J. R. Campbell, 633.  
Survival and intracellular changes of *Pseudomonas aeruginosa* during prolonged starvation. R. M. MacKelvie, J. J. R. Campbell, and A. F. Gronlund, 639.
- Capet-Antonini, F.**  
Lytic phages produced by DNA-infected mycobacteria. F. Capet-Antonini and E. Mankiewicz, 647.
- Carriere, J.**  
The bentonite flocculation test in the serology of tuberculosis. I. Purification of BCG antigens. B. B. Diena, H. Yugi, R. Wallace, J. Carriere, and L. Greenberg, 881.  
The bentonite flocculation test in the serology of tuberculosis. II. Detection of tuberculosis in cattle. R. Wallace, J. Carriere, B. B. Diena, and L. Greenberg, 887.  
Mycobacterial antibody response in experimentally infected animals. J. Carriere, R. Wallace, B. Barrett, and B. B. Diena, 923.
- Chandra, P.**  
Conversion of phenylalanine to tyrosine by microorganisms. P. Chandra and L. C. Vining, 573.
- Chapman, G. B.**  
Properties of a D-quinovosamine-producing *Achromobacter*. R. R. Colwell, E. J. Smith, and G. B. Chapman, 165.

- Chen, A. W.-C.**  
Proteolytic activity of intact yeast cells during sporulation. A. W.-C. Chen and J. J. Miller, 957.
- Chen, C.-P.**  
Phage Xp12 of *Xanthomonas oryzae* (Uyeda et Ishiyama) Dowson. T.-T. Kuo, T.-C. Huang, R.-Y. Wu, and C.-P. Chen, 1139.
- Chernesky, M. A.**  
Transmission of California encephalitis virus by mosquitoes. M. A. Chernesky, 19.
- Chet, I.**  
X-Ray analysis of hyphal and sclerotial walls of *Sclerotium rolfsii* Sacc. I. Chet and Y. Henis, 815.
- Chow, C. T.**  
Mitomycin C induction of a temperate phage in *Pseudomonas aeruginosa*. T. Yamamoto and C. T. Chow, 667.
- Clark, J. A.**  
A presence-absence (P-A) test providing sensitive and inexpensive detection of coliforms, fecal coliforms, and fecal streptococci in municipal drinking water supplies. J. A. Clark, 13.
- Clark, M. C.**  
Composition of DNA from *Phytophthora infestans*. M. C. Clark, C. H. Lawrence, O. T. Page, and W. A. Hodgson, 482.
- Collier, R. E.**  
A synthetic medium for germination, postgerminative development, and growth of spores of *Clostridium roseum*. B. C. Wooley and R. E. Collier, 173.
- Collins, R. P.**  
Sterols produced by *Cryptomonas ovata* var. *palustris*. R. P. Collins and K. Kalnins, 837.
- Colotelo, N.**  
Relation of age of cultures to yield of mycelium, hydrogen cyanide production, peroxidases, and proteins from mycelium of a low-temperature basidiomycete. A. S. Sekhon and N. Colotelo, 1169.
- Colvin, J. R.**  
Extension of bundles of cellulose microfibrils on agar surfaces by *Acetobacter xylinum*. E. J. Gibson and J. R. Colvin, 93.  
The structure of the diatom *Thalassiosira fluviatilis*. N. E. Dweltz and J. R. Colvin, 1049.
- Colwell, R. R.**  
Properties of a D-quinovosamine-producing *Achromobacter*. R. R. Colwell, E. J. Smith, and G. B. Chapman, 165.
- Cooke, P. M.**  
New methods of production and partial purification of an antiviral substance from *Penicillium cyaneo-fulvum*. T. S. David-West, P. M. Cooke, and J. W. Stevenson, 189.  
The mode of action of an antiviral substance from *Penicillium cyaneo-fulvum*. T. S. David-West, P. M. Cooke, and J. W. Stevenson, 197.
- Corkill, J. M. C.**  
Preparation and properties of diphtheria toxoids in submerged culture. III. Development of a new semi-synthetic medium. D. W. Stainer, J. M. C. Corkill, and M. J. Scholte, 1155.
- Cosenza, B. J.**  
A nutritional study of some agarolytic marine bacteria. A. E. Girard, J. D. Buck, and B. J. Cosenza, 1193.
- Counts, J. M.**  
Investigation of protoplasmic extracts of tubercle bacilli as skin test antigens. J. M. Counts and G. P. Kubica, 1053.
- Cox, S. T., Jr.**  
Action of ethylenediaminetetraacetic acid, tris(hydroxymethyl)aminomethane, and lysozyme on cell walls of *Pseudomonas aeruginosa*. S. T. Cox, Jr. and R. G. Eagon, 913.
- Curl, E. A.**  
Value of a plant growth retardant for isolating soil fungi. E. A. Curl, 182.  
Effect of atrazine on growth activity of *Sclerotium rolfsii* and *Trichoderma viride* in soil. R. Rodriguez-Kabana, E. A. Curl, and H. H. Funderburk, Jr., 1283.
- Curren, T.**  
Studies on the carbon, nitrogen, and vitamin nutrition of *Stemphylium radicinum*. T. Curren, 337.
- Currie, D. J.**  
Growth-inhibitory activities of some 1,4-naphthoquinones and related compounds on *Staphylococcus aureus* and *Escherichia coli*. G. J. Leahy, D. J. Currie, H. L. Holmes, and J. R. Maltman, 661.
- Daniel, P.**  
Histo enzymatic activities of three KB cell lines latently infected by *Myxovirus parainfluenzae*, type 3, strain EA-102. I. Aminopeptidase activity. A. Bouillant and P. Daniel, 791.  
Histo enzymatic activities of three KB cell lines latently infected by *Myxovirus parainfluenzae*, type 3, strain EA-102. II. Hydrolytic and oxidative enzyme activity. A. Bouillant and P. Daniel, 975.
- Das, D. N.**  
New observations on the determination of bacterial lipid phosphorus. G. Toennies, D. N. Das, and F. Feng, 484.
- Davey, C. B.**  
Nitrogen-fixing blue-green algae in acid forest and nursery soils. M. F. Jurgensen and C. B. Davey, 1179.
- David-West, T. S.**  
New methods of production and partial purification of an antiviral substance from *Penicillium cyaneo-fulvum*. T. S. David-West, P. M. Cooke, and J. W. Stevenson, 189.  
The mode of action of an antiviral substance from *Penicillium cyaneo-fulvum*. T. S. David-West, P. M. Cooke, and J. W. Stevenson, 197.

- Davis, R. S.**  
Metabolism of *p*- and *m*-xylene by species of *Pseudomonas*. R. S. Davis, F. E. Hossler, and R. W. Stone, 1005.
- Dawson, P. S. S.**  
The operational flexibility of the phased culture technique, as observed by changes in the cell cycle of *Candida utilis*. J. Müller and P. S. S. Dawson, 1115.  
The oxygen uptake of phased yeast cultures growing at different doubling times on nitrogen- and energy-limited media. J. Müller and P. S. S. Dawson, 1127.
- Deinema, M. H.**  
Cellular and extracellular structures in *Cryptococcus laurentii* and *Rhodotorula* species. J. Ruinen, M. H. Deinema, and C. van der Scheer, 1133.
- DeMoss, R. D.**  
Indolelactate dehydrogenase from *Clostridium sporogenes*. M. Jean and R. D. DeMoss, 429.
- Dennis, D. A.**  
Effect of *p*-fluorophenylalanine on radiation sensitivity in *Escherichia coli*. N. Dickie, D. A. Dennis, and F. S. Thatcher, 799.
- de Repentigny, J.**  
Effects of exogenous purines on growth rates and other properties of *Staphylococcus aureus* strains including a pyrimidineless mutant of the Wood 46 strain. J. de Repentigny, L. G. Mathieu, S. Turgeon, and S. Sonea, 39.  
Thymineless death of *Staphylococcus aureus* and formation of its alpha toxin. L. G. Mathieu, J. de Repentigny, S. Turgeon, and S. Sonea, 983.
- Desai, P.**  
Examination of various Gram-negative bacteria for beta-lactamase activity. P. Desai and M. Goldner, 601.
- Dickie, N.**  
Effect of *p*-fluorophenylalanine on radiation sensitivity in *Escherichia coli*. N. Dickie, D. A. Dennis, and F. S. Thatcher, 799.
- Diena, B. B.**  
Spheroplasts of enteropathogenic *Escherichia coli*. I. Biological characteristics. B. B. Diena, R. Wallace, and L. Greenberg, 675.  
Spheroplasts of enteropathogenic *Escherichia coli*. II. Immunogenicity of spheroplast vaccines. B. B. Diena, R. Wallace, G. Bennis, and L. Greenberg, 679.  
The bentonite flocculation test in the serology of tuberculosis. I. Purification of BCG antigens. B. B. Diena, H. Yugi, R. Wallace, J. Carriere, and L. Greenberg, 881.  
The bentonite flocculation test in the serology of tuberculosis. II. Detection of tuberculosis in cattle. R. Wallace, J. Carriere, B. B. Diena, and L. Greenberg, 887.  
Mycobacterial antibody response in experimentally infected animals. J. Carriere, R. Wallace, B. Barrett, and B. B. Diena, 923.
- Diesch, S. L.**  
A method for isolating leptospire from natural surface waters. J. L. Braun, S. L. Diesch, and W. F. McCulloch, 1011.
- DiPierro, J. M.**  
Enzymatic reversibility of flagellar immobilization. J. M. DiPierro and R. N. Doetsch, 487.
- Dobos, P.**  
Investigations on the formation and interconversion of Sindbis virus hemagglutinins. P. Faulkner and P. Dobos, 45.
- Doetsch, R. N.**  
Enzymatic reversibility of flagellar immobilization. J. M. DiPierro and R. N. Doetsch, 487.
- Doyle, R. J.**  
Selective enhancement of glycolytic activity by incubation of yeast cells in sugars and polyols. E. Spoerl and R. J. Doyle, 1245.
- Drinnan, R. E.**  
The axenic cultivation of *Hexamita inflata* from *Crassostrea virginica*. B. T. Khouw, H. D. McCurdy, Jr., and R. E. Drinnan, 184.
- Drobnica, L.**  
The metabolic activity of the protoplasts and normal cells of *Saccharomyces cerevisiae* and the effect of inhibitors. L. Drobnica, J. Augustin, A. Svoboda, and O. Nečas, 853.
- Dubey, H. D.**  
Effect of soil moisture levels on nitrification. H. D. Dubey, 1348.
- Dumasia, M. D.**  
An infrared study of the influence of growth media and myo-inositol on structural changes in DNA induced by dehydration and ultraviolet light. S. J. Webb and M. D. Dumasia, 841.
- Dweltz, N. E.**  
The structure of the diatom *Thalassiosira fluviatilis*. N. E. Dweltz and J. R. Colvin, 1049.
- Eagon, R. G.**  
Lipids of cell walls of *Pseudomonas aeruginosa* and *Brucella abortus*. R. A. Bobo and R. G. Eagon, 503.  
Action of ethylenediaminetetraacetic acid, tris(hydroxymethyl)aminomethane, and lysozyme on cell walls of *Pseudomonas aeruginosa*. S. T. Cox, Jr. and R. G. Eagon, 913.
- Edwards, M. R.**  
Ultrastructure and sites of tetranitro-blue tetrazolium reduction of *Lactobacillus casei*. J. P. Brown, M. R. Edwards, and P. J. VanDemark, 823.
- Edwards, P. R.**  
Lysogenic conversion of O antigens in *Salmonella* group C<sub>1</sub>. M. R. Escobar and P. R. Edwards, 453.

- Eichhorn, H. H.**  
"Steady-state" competence for bacterial transformation. H. H. Eichhorn, S. Arikawa, and S. Zamenhof, 290.
- Elkan, G. H.**  
Evidence countering the role of polygalacturonase in invasion of root hairs of leguminous plants by *Rhizobium* spp. T. T. Lillich and G. H. Elkan, 617.
- Elliott, L. F.**  
A chemical method for culture purification. L. F. Elliott and W. J. Spangler, 479.
- Elliott, L. P.**  
Development of selenite egg yolk agar. L. P. Elliott, 287.
- Embil, J. A., Jr.**  
Effect of gonadectomy on adenovirus-12 oncogenesis in Syrian hamsters. E. S. McFarlane and J. A. Embil, Jr., 1013.
- Erdei, J.**  
Change of resistance to lysozyme and ultrasonic disintegration of the mycelium of *Streptomyces griseus* under the influence of chelating agents and polyvalent cations. F. Szeszák, G. Szabó, J. Erdei, and F. Müller, 769.
- Escobar, M. R.**  
Lysogenic conversion of O antigens in *Salmonella* group C<sub>1</sub>. M. R. Escobar and P. R. Edwards, 453.
- Ewing, W. H.**  
Antigenic analysis of *Shigella sonnei* by gel diffusion technics. W. J. Martin, W. E. Mock, and W. H. Ewing, 737.
- Failly, C.**  
Identité immunochimique de certains polysaccharides extracellulaires chez diverses espèces de *Rhizobium*. I. Polysaccharides extracellulaires solubles de *Rhizobium meliloti*. C. Failly et H. Blachère, 247.
- Faulkner, P.**  
Investigations on the formation and interconversion of Sindbis virus hemagglutinins. P. Faulkner and P. Dobos, 45.  
Purification and structure of Semliki Forest virus isolated from mouse brain. P. Faulkner and S. M. McGee-Russell, 153.
- Feng, F.**  
New observations on the determination of bacterial lipid phosphorus. G. Toennies, D. N. Das, and F. Feng, 484.
- Fleming, P. C.**  
Characteristics of *Aerobacter* beta-lactamase. M. Goldner, D. G. Glass, and P. C. Fleming, 139.
- Foster, B. G.**  
Studies of active and passive immunity in animals inoculated with *Toxoplasma gondii*. B. G. Foster and W. F. McCulloch, 103.
- Frank, M. E.**  
Origin of rigid bacterial "giant flagella" ("giant whips", riesenzöpfe). M. E. Frank and H. Hoffman, 941.
- Fraser, D. K.**  
Use of normal probability paper in determining thermal melting values of deoxyribonucleic acid. M. D. Knittel, C. H. Black, W. E. Sandine, and D. K. Fraser, 239.
- Funderburk, H. H., Jr.**  
Effect of atrazine on growth activity of *Sclerotium rolfsii* and *Trichoderma viride* in soil. R. Rodriguez-Kabana, E. A. Curl, and H. H. Funderburk, Jr., 1283.
- Galleghy, M. E.**  
The production of indolelactic acid from L-tryptophan by species of *Phytophthora*. J. A. Leal, V. G. Lilly, and M. E. Galleghy, 595.
- Gander, J. E.**  
Factors influencing tartrate uptake by *Penicillium charlesii*. K. P. Klatt and J. E. Gander, 579.
- Gandhi, S. S.**  
Interferon production in cell cultures derived from various chick embryo tissues. S. S. Gandhi and R. B. Stewart, 1305.
- Gentile, J. H.**  
Demonstration of a toxin from *Aphanizomenon flos-aquae* (L.) Ralfs. P. J. Sawyer, J. H. Gentile, and J. J. Sasner, Jr., 1199.
- Georg, L. K.**  
Differentiation of *Actinomyces propionicus* from *Actinomyces israelii* and *Actinomyces naeslundii* by gas chromatography. Y.-Y. F. Li and L. K. Georg, 749.
- Ghosh, B. L.**  
Mechanism of decomposition of jute and cellulose by a *Corticium* species. B. L. Ghosh, R. G. Bose, and S. N. Basu, 459.
- Gibson, E. J.**  
Extension of bundles of cellulose microfibrils on agar surfaces by *Acetobacter xylinum*. E. J. Gibson and J. R. Colvin, 93.
- Gibson, M. S.**  
Utilization of fructose and glutamate by *Rhodospirillum rubrum*. M. S. Gibson and C. H. Wang, 493.
- Girard, A. E.**  
A nutritional study of some agarolytic marine bacteria. A. E. Girard, J. D. Buck, and B. J. Cosenza, 1193.
- Glass, D. G.**  
Characteristics of *Aerobacter* beta-lactamase. M. Goldner, D. G. Glass, and P. C. Fleming, 139.



- Goatley, J. L.**  
Production of exocellular polysaccharides by *Alternaria solani*. J. L. Goatley, 1063.
- Goldner, M.**  
Characteristics of *Aerobacter* beta-lactamase. M. Goldner, D. G. Glass, and P. C. Fleming, 139.  
Examination of various Gram-negative bacteria for beta-lactamase activity. P. Desai and M. Goldner, 601.
- Gottlieb, D.**  
The mechanism of action of griseofulvin. F. M. Huber and D. Gottlieb, 111.
- Grant, D. W.**  
Temperature-sensitive glucose fermentation in the obligately psychrophilic yeast *Candida gelida*. D. W. Grant, N. A. Sinclair, and C. H. Nash, 1105.
- Green, R. J., Jr.**  
Isolation and characterization of a fungistatic principle produced by bacteria. P. L. Smith and R. J. Green, Jr., 1289.
- Greenberg, L.**  
Spheroplasts of enteropathogenic *Escherichia coli*. I. Biological characteristics. B. B. Diena, R. Wallace, and L. Greenberg, 675.  
Spheroplasts of enteropathogenic *Escherichia coli*. II. Immunogenicity of spheroplast vaccines. B. B. Diena, R. Wallace, G. Benms, and L. Greenberg, 679.  
The bentonite flocculation test in the serology of tuberculosis. I. Purification of BCG antigens. B. B. Diena, H. Yugi, R. Wallace, J. Carriere, and L. Greenberg, 881.  
The bentonite flocculation test in the serology of tuberculosis. II. Detection of tuberculosis in cattle. R. Wallace, J. Carriere, B. B. Diena, and L. Greenberg, 887.
- Griffiths, B. W.**  
Studies on the histamine-sensitizing factor of *Bordetella pertussis* by density gradient centrifugation. B. W. Griffiths and M. A. Mason, 525.
- Gronlund, A. F.**  
Absence of storage products in cultures of *Pseudomonas aeruginosa* grown with excess carbon or nitrogen. R. M. MacKelvie, J. J. R. Campbell, and A. F. Gronlund, 627.  
Influence of cold-shock on the endogenous metabolism of *Pseudomonas aeruginosa*. R. M. MacKelvie, A. F. Gronlund, and J. J. R. Campbell, 633.  
Survival and intracellular changes of *Pseudomonas aeruginosa* during prolonged starvation. R. M. MacKelvie, J. J. R. Campbell, and A. F. Gronlund, 639.
- Grula, E. A.**  
Cell division in a species of *Erwinia*. X. Morphology of the nuclear body in filaments produced by growth in the presence of D-serine. E. A. Grula, G. L. Smith, and M. M. Grula, 293.  
Cell division in a species of *Erwinia*. XI. Some aspects of the carbon and nitrogen nutrition of *Erwinia* species. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1217.  
Cell division in a species of *Erwinia*. XII. A study of nutritional influences in D-serine inhibition of growth and division of *Erwinia* sp., and of certain specific sites of D-serine action. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1225.
- Grula, M. M.**  
Cell division in a species of *Erwinia*. X. Morphology of the nuclear body in filaments produced by growth in the presence of D-serine. E. A. Grula, G. L. Smith, and M. M. Grula, 293.  
Cell division in a species of *Erwinia*. XI. Some aspects of the carbon and nitrogen nutrition of *Erwinia* species. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1217.  
Cell division in a species of *Erwinia*. XII. A study of nutritional influences in D-serine inhibition of growth and division of *Erwinia* sp., and of certain specific sites of D-serine action. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1225.
- Guerin, M. M.**  
Preparation of a stable non-infective western equine encephalomyelitis virus antigen from allantoic fluid. J. R. Polley and M. M. Guerin, 1017.
- Gunner, H. B.**  
Porphyrin production by *Arthrobacter globiformis*. K. S. Middleton and H. B. Gunner, 1095.
- Hagedorn, D. J.**  
Survival, transmission, and taxonomy of *Pseudomonas syringae* van Hall, the causal organism of bacterial brown spot of bean (*Phaseolus vulgaris* L.). H. A. J. Hoitink, D. J. Hagedorn, and E. McCoy, 437.
- Hall, A. N.**  
Effects of biotin on glutamate production and fatty acid composition in *Bacillus cereus* 14B22. J. S. Hubbard and A. N. Hall, 1039.
- Hall, M. R.**  
Microbial growth on mercaptosuccinic acid. M. R. Hall and R. S. Berk, 515.
- Halvorson, H.**  
Microbiology of domestic wastes. I. Physiological activity of bacteria indigenous to lagoon operation as a function of seasonal change. H. Halvorson, M. Ishaque, and H. Lees, 369.
- Hamilton, I. R.**  
Synthesis and degradation of intracellular polyglucose in *Streptococcus salivarius*. I. R. Hamilton, 65.
- Harris, R. F.**  
Towards standardization of soil extracts for microbial media. R. F. Harris and D. R. Keeney, 653.
- Hartman, P. A.**  
Characterization of *Streptococcus durans* bacteriophages. M. D. Brailsford and P. A. Hartman, 397.
- Haskins, E. F.**  
Developmental studies on the true slime mold *Echinostelium minutum*. E. F. Haskins, 1309.

- Hauschild, A. H. W.**  
Experimental gas gangrene with food-poisoning *Clostridium perfringens* type A. A. H. W. Hauschild and F. S. Thatcher, 705.  
Heterogeneity of *Clostridium botulinum* type A toxin. A. H. W. Hauschild and R. Hilsheimer, 805.
- Hendricks, C. W.**  
Studies on the synthesis of staphylococcal alpha toxin. C. W. Hendricks and R. A. Altenbern, 1277.
- Henis, Y.**  
X-Ray analysis of hyphal and sclerotial walls of *Sclerotium rolfsii* Sacc. I. Chet and Y. Henis, 815.
- Herczog, D.**  
Inactivation of chloramphenicol by Gram-negative microorganisms. D. Sompolinsky, R. Ziegler-Schlomowitz, and D. Herczog, 891.
- Hess, W. M.**  
Ultrastructural comparisons of fungus hyphal cells using frozen-etched replicas and thin sections of the fungus *Pyrenochaeta terrestris*. W. M. Hess, 205.  
Chemotaxonomic and ultrastructural studies on three species of *Tilletia* occurring on wheat. J. L. Laseter, W. M. Hess, J. D. Weete, D. L. Stocks, and D. J. Weber, 1149.
- Hidalgo, A.**  
The action of antibiotics on heteroglucan production by strains of Azotobacteriaceae. A. Portoles, R. Lopez, and A. Hidalgo, 763.
- Hilsheimer, R.**  
Heterogeneity of *Clostridium botulinum* type A toxin. A. H. W. Hauschild and R. Hilsheimer, 805.
- Hodgson, W. A.**  
Composition of DNA from *Phytophthora infestans*. M. C. Clark, C. H. Lawrence, O. T. Page, and W. A. Hodgson, 482.  
A rapid test for an antifungal substance produced by a wood-inhabiting fungus in culture. M. A. Stillwell and W. A. Hodgson, 807.
- Hoffman, H.**  
Origin of rigid bacterial "giant flagella" ("giant whips", riesenzöpfe). M. E. Frank and H. Hoffman, 941.
- Hoitink, H. A. J.**  
Survival, transmission, and taxonomy of *Pseudomonas syringae* van Hall, the causal organism of bacterial brown spot of bean (*Phaseolus vulgaris* L.). H. A. J. Hoitink, D. J. Hagedorn, and E. McCoy, 437.
- Holmes, H. L.**  
Growth-inhibitory activities of some 1,4-naphthoquinones and related compounds on *Staphylococcus aureus* and *Escherichia coli*. G. J. Leahy, D. J. Currie, H. L. Holmes, and J. R. Maltman, 661.
- Hopkins, J. W.**  
Selecting an economical binary test battery for a set of microbial cultures. S. I. Niemelä, J. W. Hopkins, and C. Quadling, 271.
- Hossler, F. E.**  
Metabolism of *p*- and *m*-xylene by species of *Pseudomonas*. R. S. Davis, F. E. Hossler, and R. W. Stone, 1005.
- Hrushovetz, S. B.**  
The uptake of tritiated thymidine by human amnion cells: a correlation with cell structure. S. B. Hrushovetz, J. C. Wilt, and E. S. C. Lee, 791.
- Huang, T.-C.**  
Phage Xp12 of *Xanthomonas oryzae* (Uyeda et Ishiyama) Dowson. T.-T. Kuo, T.-C. Huang, R.-Y. Wu, and C.-P. Chen, 1139.
- Hubbard, J. S.**  
Effects of biotin on glutamate production and fatty acid composition in *Bacillus cereus* 14B22. J. S. Hubbard and A. N. Hall, 1039.
- Huber, F. M.**  
The mechanism of action of griseofulvin. F. M. Huber and D. Gottlieb, 111.  
 $\beta$ -Lactamase activity of *Escherichia intermedia*. F. M. Huber, P. G. Caltrider, and S. Noble, 349.
- Hunt, D. E.**  
The calculated nitrogen requirements of a single cell of *Escherichia coli*. D. E. Hunt and R. F. Pittillo, 480.
- Inniss, W. E.**  
The antibacterial action of phenoxiodinin-5-ium chloride. W. E. Inniss, 949.
- Ishaque, M.**  
Microbiology of domestic wastes. I. Physiological activity of bacteria indigenous to lagoon operation as a function of seasonal change. H. Halvorson, M. Ishaque, and H. Lees, 369.
- Jakus, C. M.**  
The stability of the protective antigen and histamine-sensitizing factor of *Bordetella pertussis* to acid and alkali. C. M. Jakus, L. McClure, and A. C. Wardlaw, 147.  
Intracerebral mouse protection test for pertussis vaccine. I. Apparent absence of humoral protective antibody under the usual test conditions. A. C. Wardlaw and C. M. Jakus, 989.
- James, A. W.**  
The effect of carbon source on trap formation by *Arthrobotrys conoides*. A. W. James and R. J. Nowakowski, 1260.
- Jaques, R. P.**  
The inactivation of the nuclear polyhedrosis virus of *Trichoplusia ni* by gamma and ultraviolet radiation. R. P. Jaques, 1161.
- Jean, M.**  
Indolelactate dehydrogenase from *Clostridium sporogenes*. M. Jean and R. D. DeMoss, 429.

- Jerram, W. A.**  
The production of cochlodiol and a related metabolite by *Chaetomium* species. D. Brewer, W. A. Jerram, and A. Taylor, 861.
- Johnson, C. M.**  
Immunodiffusion studies on the myxoviruses. I. The presence of influenza A/PR8 precipitins in the serum of some normal animals. C. M. Johnson and J. C. N. Westwood, 53.
- Jones, G. A.**  
Influence of acetohydroxamic acid on some activities in vitro of the rumen microbiota. G. A. Jones, 409.
- Jones, G. E.**  
A marine isolate of *Pseudomonas nigrifaciens*. I. Classification and nutrition. C. F. Norton and G. E. Jones, 1333.
- Jones, L. P.**  
Rhizopterin biosynthesis in *Staphylococcus epidermidis*. L. P. Jones and F. D. Williams, 933.
- Jones, W.**  
Lysogeny in mycobacteria. I. Conversion of colony morphology, nitrate reductase activity, and Tween 80 hydrolysis of *Mycobacterium* sp. ATCC 607 associated with lysogeny. W. Jones and A. White, 551.
- Jordan, C.**  
A proteolytic pseudomonad from skin lesions of rainbow trout (*Salmo gairdneri*). II. Some properties of the proteinase. M. F. Li and C. Jordan, 875.
- Jurgensen, M. F.**  
Nitrogen-fixing blue-green algae in acid forest and nursery soils. M. F. Jurgensen and C. B. Davey, 1179.
- Jurtshuk, P.**  
Isolation and purification of the  $\alpha(-)\beta$ -hydroxybutyric dehydrogenase of *Azotobacter vinelandii*. P. Jurtshuk, S. Manning, and C. R. Barrera, 775.
- Just, G.**  
Metabolites of pathogenic fungi. VI. The isolation of 5-thiomethyladenosine from *Candida albicans*. C. Pace-Asciak, G. Just, and F. Blank, 90.
- Kalnins, K.**  
Sterols produced by *Cryptomonas ovata* var. *palustris*. R. P. Collins and K. Kalnins, 837.
- Kalz, G. G.**  
A temperate bacteriophage of *Clostridium perfringens*. D. E. Mahony and G. G. Kalz, 1085.
- Kapoor, M.**  
Some unusual mutants of a locus related to the *am* locus in *Neurospora*. M. Kapoor and D. W. Smith, 609.
- Keeney, D. R.**  
Towards standardization of soil extracts for microbial media. R. F. Harris and D. R. Keeney, 653.
- Kenis, P. R.**  
Thermally induced leakage of cellular material and viability in *Vibrio marinus*, a psychrophilic marine bacterium. P. R. Kenis and R. Y. Morita, 1239.
- Khouw, B. T.**  
The axenic cultivation of *Hexamita inflata* from *Crassostrea virginica*. B. T. Khouw, H. D. McCurdy, Jr., and R. E. Drinnan, 184.  
Nutritional studies of a flagellated protozoan *Hexamita inflata* from the Canadian oyster, *Crassostrea virginica*. B. T. Khouw and H. D. McCurdy, Jr., 817.
- Kirn, A.**  
Influence de la température sur le développement du virus Sindbis et la production d'interféron en cultures cellulaires. M. Lab, R. Tinland et A. Kirn, 1211.
- Klatt, K. P.**  
Factors influencing tartrate uptake by *Penicillium charlesii*. K. P. Klatt and J. E. Gander, 579.
- Knittel, M. D.**  
Use of normal probability paper in determining thermal melting values of deoxyribonucleic acid. M. D. Knittel, C. H. Black, W. E. Sandine, and D. K. Fraser, 239.
- Ko, W. H.**  
Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. W. H. Ko and J. L. Lockwood, 1069.  
Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. W. H. Ko and J. L. Lockwood, 1075.
- Kohn, P.**  
Composition of lipids in extracts of *Pullularia pullulans*. E. Merdinger, P. Kohn, and R. C. McClain, 1021.
- Konowalchuk, J.**  
The enhanced release of coxsackievirus B5 from a trypsinized monolayer of HEP-2 cells. J. Konowalchuk and J. I. Speirs, 119.  
Virus enhancement with a growth product of *Streptomyces scabies*. I. Production and properties of scaben. J. Konowalchuk, 1079.  
Virus enhancement with a growth product of *Streptomyces scabies*. II. Increased release of coxsackievirus B5 from HEP-2 monolayers treated with scaben. J. Konowalchuk and J. I. Speirs, 1111.
- Korngold, R. R.**  
Responses of a psychrophilic marine bacterium to changes in its ionic environment. R. R. Korngold and D. J. Kushner, 253.
- Kramer, M. J.**  
Ultrastructural differences in the exosporium of the Sterne and Vollum strains of *Bacillus anthracis*. M. J. Kramer and I. L. Roth, 1297.



- Krieg, N. R.**  
Isolation of *Gallionella ferruginea* by use of formalin. J. W. Nunley and N. R. Krieg, 385.  
A microbial interaction involving combined mutualism and inhibition. H. T. Yeoh, H. R. Bungay, and N. R. Krieg, 491.
- Krouse, H. R.**  
Sulphur and carbon isotope fractionation by *Salmonella heidelberg* during anaerobic  $\text{SO}_3^{2-}$  reduction in Trypticase soy broth medium. H. R. Krouse and A. Sasaki, 417.
- Kubica, G. P.**  
Investigation of protoplasmic extracts of tubercle bacilli as skin test antigens. J. M. Counts and G. P. Kubica, 1053.
- Kuehn, G. D.**  
Enzymes of the Entner-Doudoroff path in fructose-grown *Hydrogenomonas eutropha*. G. D. Kuehn and B. A. McFadden, 1259.
- Kuo, T.-T.**  
Phage Xp12 of *Xanthomonas oryzae* (Uyeda et Ishiyama) Dowson. T.-T. Kuo, T.-C. Huang, R.-Y. Wu, and C.-P. Chen, 1139.
- Kurstak, E.**  
Infection bactérienne à *Salmonella typhimurium* chez un invertébré, *Galleria mellonella* L. E. Kurstak et C. E. Vega, 233.  
Localisation du matériel antigénique du virus de la denso-nucléose au cours de l'infection chez *Galleria mellonella* L. E. Kurstak et M. Stanislawski-Birencwajg, 1350.
- Kushner, D. J.**  
Responses of a psychrophilic marine bacterium to changes in its ionic environment. R. R. Korngold and D. J. Kushner, 253.
- Lab, M.**  
Influence de la température sur le développement du virus Sindbis et la production d'interféron en cultures cellulaires. M. Lab, R. Tinland et A. Kirn, 1211.
- Lachance, R.-A.**  
Exigences en sels minéraux de *Corynebacterium sepedonicum* (Spiek. & Kott.) Skapt. & Burkh. L. M. Bordeleau et R.-A. Lachance, 467.  
Effets des purines et des pyrimidines sur la croissance de *Corynebacterium sepedonicum* (Spiek. & Kott.) Skapt. & Burkh. L. M. Bordeleau et R.-A. Lachance, 475.
- Larkin, J. M.**  
Growth of psychrophilic microorganisms at subzero temperatures. J. M. Larkin and J. L. Stokes, 97.
- LaRue, T. A.**  
The utilization of purines and pyrimidines by yeasts. T. A. LaRue and J. F. T. Spencer, 79.
- Laseter, J. L.**  
Chemotaxonomic and ultrastructural studies on three species of *Tilletia* occurring on wheat. J. L. Laseter, W. M. Hess, J. D. Weete, D. L. Stocks, and D. J. Weber, 1149.
- Lawrence, C. H.**  
Composition of DNA from *Phytophthora infestans*. M. C. Clark, C. H. Lawrence, O. T. Page, and W. A. Hodgson, 482.
- Lawrence, J. W.**  
Stemphone, a biologically active yellow pigment produced by *Stemphylium sarcinaeforme* (Cav.) Wiltshire. P. M. Scott and J. W. Lawrence, 1015.
- Leahy, G. J.**  
Growth-inhibitory activities of some 1,4-naphthoquinones and related compounds on *Staphylococcus aureus* and *Escherichia coli*. G. J. Leahy, D. J. Currie, H. L. Holmes, and J. R. Maltman, 661.
- Leal, J. A.**  
The production of indolelactic acid from L-tryptophan by species of *Phytophthora*. J. A. Leal, V. G. Lilly, and M. E. Gallegly, 595.
- Leben, C.**  
Epiphytic microflora: the balloon print isolation technique. V. Rusch and C. Leben, 486.
- Lee, E. S. C.**  
The uptake of tritiated thymidine by human amnion cells: a correlation with cell structure. S. B. Hrushovetz, J. C. Wilt, and E. S. C. Lee, 791.
- Leers, W.-D.**  
Immunodiffusion and immunoelectrophoretic studies of reovirus antigens. W.-D. Leers, K. R. Rozee, and A. C. Wardlaw, 161.
- Lees, H.**  
Microbiology of domestic wastes. I. Physiological activity of bacteria indigenous to lagoon operation as a function of seasonal change. H. Halvorson, M. Ishaque, and H. Lees, 369.
- Leung, F. C.**  
Effects of immunosuppressive drugs on secondary antibody response in vitro. F. C. Leung and S. I. Vas, 7.
- Levin, R. E.**  
Spontaneous spheroplast formation by *Desulfovibrio aestuarii*. R. E. Levin and R. H. Vaughn, 1271.
- Lewin, R. A.**  
Purification and structure of rhabdosomes. R. E. Reichle and R. A. Lewin, 211.
- Lewis, S.**  
Some patterns of B vitamin requirements among neritic marine bacteria. P. R. Burkholder and S. Lewis, 537.

- Li, M. F.**  
A proteolytic pseudomonad from skin lesions of rainbow trout (*Salmo gairdnerii*). II. Some properties of the proteinase. M. F. Li and C. Jordan, 875.
- Li, Y.-Y. F.**  
Differentiation of *Actinomyces propionicus* from *Actinomyces israelii* and *Actinomyces naeslundii* by gas chromatography. Y.-Y. F. Li and L. K. Georg, 749.
- Lillich, T. T.**  
Evidence countering the role of polygalacturonase in invasion of root hairs of leguminous plants by *Rhizobium* spp. T. T. Lillich and G. H. Elkan, 617.
- Lilly, V. G.**  
The production of indolelactic acid from L-tryptophan by species of *Phytophthora*. J. A. Leal, V. G. Lilly, and M. E. Gallegly, 595.
- Lockwood, J. L.**  
Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. W. H. Ko and J. L. Lockwood, 1069.  
Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. W. H. Ko and J. L. Lockwood, 1075.
- Lopez, R.**  
The action of antibiotics on heteroglucan production by strains of Azotobacteriaceae. A. Portoles, R. Lopez, and A. Hidalgo, 763.
- Lussier, G.**  
Caractères biologiques de souches du virus de l'influenza adaptées à 29 °C et à 41 °C. A. Boudreault, G. Lussier et V. Pavlanis, 867.
- McClain, R. C.**  
Composition of lipids in extracts of *Pullularia pullulans*. E. Merdinger, P. Kohn, and R. C. McClain, 1021.
- McClure, L.**  
The stability of the protective antigen and histamine-sensitizing factor of *Bordetella pertussis* to acid and alkali. C. M. Jakus, L. McClure, and A. C. Wardlaw, 147.
- McCoy, E.**  
Survival, transmission, and taxonomy of *Pseudomonas syringae* van Hall, the causal organism of bacterial brown spot of bean (*Phaseolus vulgaris* L.). H. A. J. Hoitink, D. J. Hagedorn, and E. McCoy, 437.
- McCulloch, W. F.**  
Studies of active and passive immunity in animals inoculated with *Toxoplasma gondii*. B. G. Foster and W. F. McCulloch, 103.  
A method for isolating leptospire from natural surface waters. J. L. Braun, S. L. Diesch, and W. F. McCulloch, 1011.
- McCurdy, H. D., Jr.**  
The axenic cultivation of *Hexamita inflata* from *Crassostrea virginica*. B. T. Khouw, H. D. McCurdy, Jr., and R. E. Drinnan, 184.  
Nutritional studies of a flagellated protozoan *Hexamita inflata* from the Canadian oyster, *Crassostrea virginica*. B. T. Khouw and H. D. McCurdy, Jr., 817.
- McDonald, I. J.**  
Extracellular proteolytic enzymes of psychrophilic bacteria. I. Purification and some properties of enzymes of an obligately psychrophilic red-pigmented bacterium. Y. Nunokawa and I. J. McDonald, 215.  
Extracellular proteolytic enzymes of psychrophilic bacteria. II. Production and heterogeneity of enzymes of an obligately psychrophilic red-pigmented bacterium and of a white variant. Y. Nunokawa and I. J. McDonald, 225.
- McFadden, B. A.**  
Enzymes of the Entner-Doudoroff path in fructose-grown *Hydrogenomonas eutropha*. G. D. Kuehn and B. A. McFadden, 1259.
- McFarlane, E. S.**  
Observed increase in methylated purines excreted by hamsters bearing adenovirus-12 induced tumors. E. S. McFarlane and G. J. Shaw, 185.  
Nucleic acid methylase activity in hamsters bearing tumors induced by adenovirus-12. E. S. McFarlane and G. J. Shaw, 499.  
Effect of gonadectomy on adenovirus-12 oncogenesis in Syrian hamsters. E. S. McFarlane and J. A. Embil, Jr., 1013.
- McGee-Russell, S. M.**  
Purification and structure of Semliki Forest virus isolated from mouse brain. P. Faulkner and S. M. McGee-Russell, 153.
- McGrath, R.**  
Influence of nitrogen source on formation of chloramphenicol in cultures of *Streptomyces* sp. 3022a. D. W. S. Westlake, F. Sala, R. McGrath, and L. C. Vining, 587.
- MacKelvie, R. M.**  
Absence of storage products in cultures of *Pseudomonas aeruginosa* grown with excess carbon or nitrogen. R. M. MacKelvie, J. J. R. Campbell, and A. F. Gronlund, 627.  
Influence of cold-shock on the endogenous metabolism of *Pseudomonas aeruginosa*. R. M. MacKelvie, A. F. Gronlund, and J. J. R. Campbell, 633.  
Survival and intracellular changes of *Pseudomonas aeruginosa* during prolonged starvation. R. M. MacKelvie, J. J. R. Campbell, and A. F. Gronlund, 639.

- McKiel, J. A.**  
Serodiagnosis in Q fever with special emphasis on the radioisotope precipitation test. J. A. McKiel and A. M. Millar, 721.
- MacNeill, B. H.**  
The induction of dodine tolerance in *Fusarium oxysporum* f. *melonis*: a technique applicable to the study of the bionomics of soil-borne fungal pathogens. B. H. MacNeill and J. V. Sabanayagam, 1262.
- Madhosingh, C.**  
Serological differentiation of the *Ascochyta* species on peas. C. Madhosingh and V. R. Wallen, 449.
- Mahl, M. C.**  
Nitrogen fixation by cell-free extracts of *Klebsiella pneumoniae*. M. C. Mahl and P. W. Wilson, 33.
- Mahony, D. E.**  
A temperate bacteriophage of *Clostridium perfringens*. D. E. Mahony and G. G. Kalz, 1085.
- Malik, A. C.**  
An evaluation of the taxonomy of *Propionibacterium*. A. C. Malik, G. W. Reinbold, and E. R. Vedamuthu, 1185.
- Maltman, J. R.**  
Growth-inhibitory activities of some 1,4-naphthoquinones and related compounds on *Staphylococcus aureus* and *Escherichia coli*. G. J. Leahy, D. J. Currie, H. L. Holmes, and J. R. Maltman, 661.
- Mandel, M.**  
A purple-pigment-producing bean wilt bacterium, *Corynebacterium flaccumfaciens* var. *violaceum*, n. var. M. L. Schuster, A. K. Vidaver, and M. Mandel, 423.
- Mankiewicz, E.**  
Lytic phages produced by DNA-infected mycobacteria. F. Capet-Antonini and E. Mankiewicz, 647.
- Manning, S.**  
Isolation and purification of the D(-)- $\beta$ -hydroxybutyric dehydrogenase of *Azotobacter vinelandii*. P. Jurtshuk, S. Manning, and C. R. Barrera, 775.
- Martin, W. J.**  
Antigenic analysis of *Shigella sonnei* by gel diffusion technics. W. J. Martin, W. E. Mock, and W. H. Ewing, 737.
- Mason, M. A.**  
Studies on the histamine-sensitizing factor of *Bordetella pertussis* by density gradient centrifugation. B. W. Griffiths and M. A. Mason, 525.
- Mathieu, L. G.**  
Effects of exogenous purines on growth rates and other properties of *Staphylococcus aureus* strains including a pyrimidineless mutant of the Wood 46 strain. J. de Repentigny, L. G. Mathieu, S. Turgeon, and S. Sonea, 39.  
Thymineless death of *Staphylococcus aureus* and formation of its alpha toxin. L. G. Mathieu, J. de Repentigny, S. Turgeon, and S. Sonea, 983.
- Meerovitch, E.**  
Serological characterization of  $\gamma$ M (19 S) and  $\gamma$ G (7 S) rabbit antibodies in response to *Entamoeba histolytica* antigens. Z. Ali Khan and E. Meerovitch, 1317.
- Merdinger, E.**  
Composition of lipids in extracts of *Pullularia pullulans*. E. Merdinger, P. Kohn, and R. C. McClain, 1021.
- Middleton, K. S.**  
Porphyrin production by *Arthrobacter globiformis*. K. S. Middleton and H. B. Gunner, 1095.
- Miles, P. G.**  
A relationship between cell wall composition and mutant morphology in the basidiomycete *Schizophyllum commune*. C.-S. Wang, M. N. Schwalb, and P. G. Miles, 809.
- Millar, A. M.**  
Serodiagnosis in Q fever with special emphasis on the radioisotope precipitation test. J. A. McKiel and A. M. Millar, 721.
- Miller, J. J.**  
Proteolytic activity of intact yeast cells during sporulation. A. W.-C. Chen and J. J. Miller, 957.
- Milner, K. C.**  
Reaction of endotoxin and surfactants. III. Effect of sodium lauryl sulfate on the structure and pyrogenicity of endotoxin. J. A. Rudbach and K. C. Milner, 1173.
- Mock, W. E.**  
Antigenic analysis of *Shigella sonnei* by gel diffusion technics. W. J. Martin, W. E. Mock, and W. H. Ewing, 737.
- Modi, V. V.**  
Metabolic changes in biotin-deficient *Aspergillus nidulans*. K. K. Rao and V. V. Modi, 813.
- Morgante, O.**  
Isolation of western encephalitis virus from mosquitoes in Alberta. J. A. Shemanchuk and O. Morgante, 1.
- Morita, R. Y.**  
Thermally induced leakage of cellular material and viability in *Vibrio marinus*, a psychrophilic marine bacterium. P. R. Kenis and R. Y. Morita, 1239.
- Müller, F.**  
Change of resistance to lysozyme and ultrasonic disintegration of the mycelium of *Streptomyces griseus* under the influence of chelating agents and polyvalent cations. F. Szeszák, G. Szabó, J. Erdei, and F. Müller, 769.

- Müller, J.**  
The operational flexibility of the phased culture technique, as observed by changes in the cell cycle of *Candida utilis*. J. Müller and P. S. S. Dawson, 1115.  
The oxygen uptake of phased yeast cultures growing at different doubling times on nitrogen- and energy-limited media. J. Müller and P. S. S. Dawson, 1127.
- Muschel, L. H.**  
Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. P. M. Webb and L. H. Muschel, 545.
- Nash, C. H.**  
Thermal injury and death in an obligately psychrophilic yeast, *Candida nivalis*. C. H. Nash and N. A. Sinclair, 691.  
Temperature-sensitive glucose fermentation in the obligately psychrophilic yeast *Candida gelida*. D. W. Grant, N. A. Sinclair, and C. H. Nash, 1105.
- Nečas, O.**  
The metabolic activity of the protoplasts and normal cells of *Saccharomyces cerevisiae* and the effect of inhibitors. L. Drobna, J. Augustin, A. Svoboda, and O. Nečas, 853.
- Niemelä, S. I.**  
Selecting an economical binary test battery for a set of microbial cultures. S. I. Niemelä, J. W. Hopkins, and C. Quadling, 271.
- Noble, S.**  
 $\beta$ -Lactamase activity of *Escherichia intermedia*. F. M. Huber, P. G. Caltrider, and S. Noble, 349.
- Norton, C. F.**  
A marine isolate of *Pseudomonas nigricans*. I. Classification and nutrition. C. F. Norton and G. E. Jones, 1333.
- Nowakowski, R. J.**  
The effect of carbon source on trap formation by *Arthrobotrys conoides*. A. W. James and R. J. Nowakowski, 1260.
- Nunley, J. W.**  
Isolation of *Gallionella ferruginea* by use of formalin. J. W. Nunley and N. R. Krieg, 385.
- Nunokawa, Y.**  
Extracellular proteolytic enzymes of psychrophilic bacteria. I. Purification and some properties of enzymes of an obligately psychrophilic red-pigmented bacterium. Y. Nunokawa and I. J. McDonald, 215.  
Extracellular proteolytic enzymes of psychrophilic bacteria. II. Production and heterogeneity of enzymes of an obligately psychrophilic red-pigmented bacterium and of a white variant. Y. Nunokawa and I. J. McDonald, 225.
- Ogunbi, O.**  
Ukai virus proliferation in mosquitoes. O. Ogunbi, 125.
- Pace-Asciak, C.**  
Metabolites of pathogenic fungi. VI. The isolation of 5-thiomethyladenosine from *Candida albicans*. C. Pace-Asciak, G. Just, and F. Blank, 90.
- Page, O. T.**  
Composition of DNA from *Phytophthora infestans*. M. C. Clark, C. H. Lawrence, O. T. Page, and W. A. Hodgson, 482.
- Parham, C. F.**  
Cell division in a species of *Erwinia*. XI. Some aspects of the carbon and nitrogen nutrition of *Erwinia* species. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1217.  
Cell division in a species of *Erwinia*. XII. A study of nutritional influences in D-serine inhibition of growth and division of *Erwinia* sp., and of certain specific sites of D-serine action. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1225.
- Parisi, J. T.**  
Antibiotic resistance of glycine-resistant variants of *Staphylococcus aureus*. J. T. Parisi and W. J. Suling, 811.
- Parker, M. S.**  
A reversible inhibition of the germination of bacterial spores. M. S. Parker and T. J. Bradley, 745.
- Parson, W. L.**  
Role of poly- $\beta$ -hydroxybutyrate in survival of *Sphaerotilus discophorus* during starvation. J. L. Stokes and W. L. Parson, 785.
- Pavlanis, V.**  
Caractères biologiques de souches du virus de l'influenza adaptées à 29 °C et à 41 °C. A. Boudreault, G. Lussier et V. Pavlanis, 867.
- Pelletier, G.**  
Formation of endospores in *Verticillium albo-atrum* (R. & B.). C. Aubé and G. Pelletier, 606.
- Pentland, G. D.**  
The stimulatory effect of *Aureobasidium pullulans* on rhizomorph development of *Armillaria mellea* in auto-claved soil. G. D. Pentland, 87.
- Perry, J. J.**  
Oxidation of hydrocarbons by microorganisms isolated from soil. J. J. Perry and H. W. Scheld, 403.
- Pittillo, R. F.**  
The calculated nitrogen requirements of a single cell of *Escherichia coli*. D. E. Hunt and R. F. Pittillo, 480.
- Polley, J. R.**  
Preparation of a stable non-infective western equine encephalomyelitis virus antigen from allantoic fluid. J. R. Polley and M. M. Guerin, 1017.

- Pootjes, C. F.**  
Repair of ultraviolet light damage by a facultative autotroph: *Hydrogenomonas facilis*. C. F. Pootjes, 1205.
- Portoles, A.**  
The action of antibiotics on heteroglucan production by strains of Azotobacteriaceae. A. Portoles, R. Lopez, and A. Hidalgo, 763.
- Quadling, C.**  
Selecting an economical binary test battery for a set of microbial cultures. S. I. Niemelä, J. W. Hopkins, and C. Quadling, 271.
- Rao, K. K.**  
Metabolic changes in biotin-deficient *Aspergillus nidulans*. K. K. Rao and V. V. Modi, 813.
- Reese, E. T.**  
Extracellular purine  $\beta$ -ribosidases from fungi. E. T. Reese, 377.
- Reichle, R. E.**  
Purification and structure of rhabdosomes. R. E. Reichle and R. A. Lewin, 211.
- Reinbold, G. W.**  
An evaluation of the taxonomy of *Propionibacterium*. A. C. Malik, G. W. Reinbold, and E. R. Vedamuthu, 1185.
- Roberge, M. R.**  
Effects of toluene on microflora and hydrolysis of urea in a black spruce humus. M. R. Roberge, 999.
- Robern, H.**  
Nutritional requirements of mutants of *Escherichia coli* resistant to gamma irradiation. H. Robern and F. S. Thatcher, 711.
- Rodriguez-Kabana, R.**  
Effect of atrazine on growth activity of *Sclerotium rolfsii* and *Trichoderma viride* in soil. R. Rodriguez-Kabana, E. A. Curl, and H. H. Funderburk, Jr., 1283.
- Rogolsky, M.**  
The response of sporogenesis in *Bacillus subtilis* to acriflavine. M. Rogolsky and R. A. Slepecky, 61.
- Rohlfing, S. R.**  
An immunologic comparison of five murine leukemia viruses grown in tissue culture. E. R. Brown, S. R. Rohlfing, and S. O. Schwartz, 1347.
- Roth, I. L.**  
Ultrastructural differences in the exosporium of the Sterne and Vollum strains of *Bacillus anthracis*. M. J. Kramer and I. L. Roth, 1297.
- Rozee, K. R.**  
Immunodiffusion and immunoelectrophoretic studies of reovirus antigens. W.-D. Leers, K. R. Rozee, and A. C. Wardlaw, 161.
- Rudbach, J. A.**  
Reaction of endotoxin and surfactants. III. Effect of sodium lauryl sulfate on the structure and pyrogenicity of endotoxin. J. A. Rudbach and K. C. Milner, 1173.
- Ruinen, J.**  
Cellular and extracellular structures in *Cryptococcus laurentii* and *Rhodotorula* species. J. Ruinen, M. H. Deinema, and C. van der Scheer, 1133.
- Rusch, V.**  
Epiphytic microflora: the balloon print isolation technique. V. Rusch and C. Leben, 486.
- Sabanayagam, J. V.**  
The induction of dodine tolerance in *Fusarium oxysporum* f. *melonis*: a technique applicable to the study of the bionomics of soil-borne fungal pathogens. B. H. MacNeill and J. V. Sabanayagam, 1262.
- Sakai, S.**  
Production of polyol dehydrogenases in bacteria. K. Yamanaka and S. Sakai, 391.
- Sala, F.**  
Influence of nitrogen source on formation of chloramphenicol in cultures of *Streptomyces* sp. 3022a. D. W. S. Westlake, F. Sala, R. McGrath, and L. C. Vining, 587.
- Sandine, W. E.**  
Use of normal probability paper in determining thermal melting values of deoxyribonucleic acid. M. D. Knittel, C. H. Black, W. E. Sandine, and D. K. Fraser, 239.
- Santoro, T.**  
Sorption between microorganisms and clay minerals as determined by the electrical sensing zone particle analyzer. T. Santoro and G. Stotzky, 299.
- Sasaki, A.**  
Sulphur and carbon isotope fractionation by *Salmonella heidelberg* during anaerobic  $\text{SO}_3^-$  reduction in Trypticase soy broth medium. H. R. Krouse and A. Sasaki, 417.
- Sashital, K. S.**  
Catabolite repression and feedback inhibition of protease in *Streptococcus faecalis* var. *liquefaciens*. K. S. Sashital and L. N. Zimmerman, 1265.
- Sasner, J. J., Jr.**  
Demonstration of a toxin from *Aphanizomenon flos-aquae* (L.) Ralfs. P. J. Sawyer, J. H. Gentile, and J. J. Sasner, Jr., 1199.
- Sattar, S. A.**  
Immunofluorescence in the study of viruses in tissue culture. II. Development of an immunofluorescent cell assay for influenza (A/PR8) virus. S. A. Sattar and J. C. N. Westwood, 533.



- Sawyer, P. J.**  
Demonstration of a toxin from *Aphanizomenon flos-aquae* (L.) Ralfs. P. J. Sawyer, J. H. Gentile, and J. J. Sasner, Jr., 1199.
- Scheld, H. W.**  
Oxidation of hydrocarbons by microorganisms isolated from soil. J. J. Perry and H. W. Scheld, 403.
- Scholte, M. J.**  
Preparation and properties of diphtheria toxoids in submerged culture. III. Development of a new semi-synthetic medium. D. W. Stainer, J. M. C. Corkill, and M. J. Scholte, 1155.
- Schuster, M. L.**  
A purple-pigment-producing bean wilt bacterium, *Corynebacterium flaccumfaciens* var. *violaceum*, n. var. M. L. Schuster, A. K. Vidaver, and M. Mandel, 423.
- Schwalb, M. N.**  
A relationship between cell wall composition and mutant morphology in the basidiomycete *Schizophyllum commune*. C.-S. Wang, M. N. Schwalb, and P. G. Miles, 809.
- Schwartz, S. O.**  
An immunologic comparison of five murine leukemia viruses grown in tissue culture. E. R. Brown, S. R. Rohlfing, and S. O. Schwartz, 1347.
- Schwinghamer, E. A.**  
Loss of effectiveness and infectivity in mutants of *Rhizobium* resistant to metabolic inhibitors. E. A. Schwinghamer, 355.
- Scott, P. M.**  
Mycotoxins from food-borne fungi. W. van Walbeek, P. M. Scott, and F. S. Thatcher, 131.  
Stemphone, a biologically active yellow pigment produced by *Stemphylium sarcinaeforme* (Cav.) Wiltshire. P. M. Scott and J. W. Lawrence, 1015.
- Seaman, A.**  
Ascospore germination in *Byssoschlamys nivea*. A. R. Yates, A. Seaman, and M. Woodbine, 319.  
Erratum: Ascospore germination in *Byssoschlamys nivea*. A. R. Yates, A. Seaman, and M. Woodbine, 1013.
- Sehgal, S. N.**  
11 $\alpha$ -Hydroxylation of steroids by spores of *Aspergillus ochraceus*. S. N. Sehgal, K. Singh, and C. Vezina, 529.
- Sekhon, A. S.**  
Relation of age of cultures to yield of mycelium, hydrogen cyanide production, peroxidases, and proteins from mycelium of a low-temperature basidiomycete. A. S. Sekhon and N. Colotelo, 1169.
- Seyfried, P. L.**  
An approach to the classification of lactobacilli using computer-aided numerical analysis. P. L. Seyfried, 313.
- Shaw, D. A.**  
Regulation of "malic" isozymes and malic dehydrogenases in *Neurospora crassa*. M. W. Zink and D. A. Shaw, 907.
- Shaw, G. J.**  
Observed increase in methylated purines excreted by hamsters bearing adenovirus-12 induced tumors. E. S. McFarlane and G. J. Shaw, 185.  
Nucleic acid methylase activity in hamsters bearing tumors induced by adenovirus-12. E. S. McFarlane and G. J. Shaw, 499.
- Sheaff, E. T.**  
A substance enhancing virus growth and antagonistic to interferon action. E. T. Sheaff and R. B. Stewart, 965.
- Shemanchuk, J. A.**  
Isolation of western encephalitis virus from mosquitoes in Alberta. J. A. Shemanchuk and O. Morgante, 1.
- Sinclair, N. A.**  
Thermal injury and death in an obligately psychrophilic yeast, *Candida nivalis*. C. H. Nash and N. A. Sinclair, 691.  
Temperature-sensitive glucose fermentation in the obligately psychrophilic yeast *Candida gelida*. D. W. Grant, N. A. Sinclair, and C. H. Nash, 1105.
- Singh, H. N.**  
Studies on morphogenesis in a blue-green alga. I. Effect of inorganic nitrogen sources on developmental morphology of *Anabaena doliolum*. H. N. Singh and B. S. Srivastava, 1341.
- Singh, K.**  
11 $\alpha$ -Hydroxylation of steroids by spores of *Aspergillus ochraceus*. S. N. Sehgal, K. Singh, and C. Vezina, 529.
- Slepecky, R. A.**  
The response of sporogenesis in *Bacillus subtilis* to acriflavine. M. Rogolsky and R. A. Slepecky, 61.
- Smith, D. W.**  
Some unusual mutants of a locus related to the *am* locus in *Neurospora*. M. Kapoor and D. W. Smith, 609.
- Smith, E. J.**  
Properties of a D-quinovosamine-producing *Achromobacter*. R. R. Colwell, E. J. Smith, and G. B. Chapman, 165.
- Smith, G. L.**  
Cell division in a species of *Erwinia*. X. Morphology of the nuclear body in filaments produced by growth in the presence of D-serine. E. A. Grula, G. L. Smith, and M. M. Grula, 293.
- Smith, L. DS.**  
The clostridial flora of marine sediments from a productive and from a non-productive area. L. DS. Smith, 1301.
- Smith, P. L.**  
Isolation and characterization of a fungistatic principle produced by bacteria. P. L. Smith and R. J. Green, Jr., 1289.

- Smith, R. C.**  
Growth and nucleic acid synthesis of *Salmonella typhimurium* inhibited by  $\alpha$ -methylmethionine. R. C. Smith, 331.
- Smith, R. W.**  
Cell division in a species of *Erwinia*. XI. Some aspects of the carbon and nitrogen nutrition of *Erwinia* species. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1217.  
Cell division in a species of *Erwinia*. XII. A study of nutritional influences in D-serine inhibition of growth and division of *Erwinia* sp., and of certain specific sites of D-serine action. M. M. Grula, R. W. Smith, C. F. Parham, and E. A. Grula, 1225.
- Sompolinsky, D.**  
Inactivation of chloramphenicol by Gram-negative microorganisms. D. Sompolinsky, R. Ziegler-Schlomowitz, and D. Herczog, 891.
- Sonea, S.**  
Effects of exogenous purines on growth rates and other properties of *Staphylococcus aureus* strains including a pyrimidineless mutant of the Wood 46 strain. J. de Repentigny, L. G. Mathieu, S. Turgeon, and S. Sonea, 39.  
Thymineless death of *Staphylococcus aureus* and formation of its alpha toxin. L. G. Mathieu, J. de Repentigny, S. Turgeon, and S. Sonea, 983.
- Spangler, W. J.**  
A chemical method for culture purification. L. F. Elliott and W. J. Spangler, 479.
- Speirs, J. I.**  
The enhanced release of coxsackievirus B5 from a trypsinized monolayer of HEP-2 cells. J. Konowalchuk and J. I. Speirs, 119.  
Virus enhancement with a growth product of *Streptomyces scabies*. II. Increased release of coxsackievirus B5 from HEP-2 monolayers treated with scaben. J. Konowalchuk and J. I. Speirs, 1111.
- Spencer, J. F. T.**  
The utilization of purines and pyrimidines by yeasts. T. A. LaRue and J. F. T. Spencer, 79.
- Spoerl, E.**  
Selective enhancement of glycolytic activity by incubation of yeast cells in sugars and polyols. E. Spoerl and R. J. Doyle, 1245.
- Srivastava, B. S.**  
Studies on morphogenesis in a blue-green alga. I. Effect of inorganic nitrogen sources on developmental morphology of *Anabaena doliolum*. H. N. Singh and B. S. Srivastava, 1341.
- Stainer, D. W.**  
Preparation and properties of diphtheria toxoids in submerged culture. II. Purification, detoxification, antigenicity, and stability. D. W. Stainer, 327.  
Preparation and properties of diphtheria toxoids in submerged culture. III. Development of a new semi-synthetic medium. D. W. Stainer, J. M. C. Corkill, and M. J. Scholte, 1155.
- Stanislawski-Birencwajg, M.**  
Localisation du matériel antigénique du virus de la densovirus au cours de l'infection chez *Galleria mellonella* L. E. Kurstak et M. Stanislawski-Birencwajg, 1350.
- Stevenson, I. L.**  
The fine structure of *Arthrobacter pascens* and the development of mesosomes during the growth cycle. I. L. Stevenson, 1029.
- Stevenson, J. W.**  
New methods of production and partial purification of an antiviral substance from *Penicillium cyaneo-fulvum*. T. S. David-West, P. M. Cooke, and J. W. Stevenson, 189.  
The mode of action of an antiviral substance from *Penicillium cyaneo-fulvum*. T. S. David-West, P. M. Cooke, and J. W. Stevenson, 197.
- Stewart, R. B.**  
A substance enhancing virus growth and antagonistic to interferon action. E. T. Sheaff and R. B. Stewart, 965.  
Interferon production in cell cultures derived from various chick embryo tissues. S. S. Gandhi and R. B. Stewart, 1305.
- Stillwell, M. A.**  
A rapid test for an antifungal substance produced by a wood-inhabiting fungus in culture. M. A. Stillwell and W. A. Hodgson, 807.
- Stocks, D. L.**  
Chemotaxonomic and ultrastructural studies on three species of *Tilletia* occurring on wheat. J. L. Laseter, W. M. Hess, J. D. Weete, D. L. Stocks, and D. J. Weber, 1149.
- Stokes, J. L.**  
Growth of psychrophilic microorganisms at subzero temperatures. J. M. Larkin and J. L. Stokes, 97.  
Role of poly- $\beta$ -hydroxybutyrate in survival of *Sphaerotilus discophorus* during starvation. J. L. Stokes and W. L. Parson, 785.
- Stone, R. W.**  
Metabolism of *p*- and *m*-xylene by species of *Pseudomonas*. R. S. Davis, F. E. Hossler, and R. W. Stone, 1005.
- Stotzky, G.**  
Sorption between microorganisms and clay minerals as determined by the electrical sensing zone particle analyzer. T. Santoro and G. Stotzky, 299.
- Strandberg, G. W.**  
Formation of the nitrogen-fixing enzyme system in *Azotobacter vinelandii*. G. W. Strandberg and P. W. Wilson, 25.

- Strasidine, G. A.**  
Amylopectin accumulation in *Clostridium botulinum* type E. G. A. Strasidine, 1059.
- Strong, D. H.**  
Amino acid content and elemental composition of selected strains of *Clostridium perfringens*. K. F. Weiss and D. H. Strong, 604.
- Strzelczyk, A. B.**  
Influence of antifungal vapors on spore germination of fungi isolated from deteriorated old books. A. B. Strzelczyk, 901.
- Suling, W. J.**  
Antibiotic resistance of glycine-resistant variants of *Staphylococcus aureus*. J. T. Parisi and W. J. Suling, 811.
- Sundman, V.**  
A simple plate test for the determination of protocatechuic acid utilization by soil bacteria. V. Sundman, 88.
- Svoboda, A.**  
The metabolic activity of the protoplasts and normal cells of *Saccharomyces cerevisiae* and the effect of inhibitors. Ľ. Drobnica, J. Augustín, A. Svoboda, and O. Nečas, 853.
- Sweeny, P. R.**  
Variation in susceptibility of chick embryo tissues to infection with Rous Sarcoma virus in vitro. R. Bather, A. Wong, and P. R. Sweeny, 1164.
- Szabó, G.**  
Change of resistance to lysozyme and ultrasonic disintegration of the mycelium of *Streptomyces griseus* under the influence of chelating agents and polyvalent cations. F. Szeszák, G. Szabó, J. Erdei, and F. Müller, 769.  
Role of streptomycin in the life of *Streptomyces griseus*: streptidine-containing fractions in the cell walls of *Streptomyces griseus* strains. Gy. Barabás and G. Szabó, 1325.
- Szeszák, F.**  
Change of resistance to lysozyme and ultrasonic disintegration of the mycelium of *Streptomyces griseus* under the influence of chelating agents and polyvalent cations. F. Szeszák, G. Szabó, J. Erdei, and F. Müller, 769.
- Tai, C. C.**  
Lethal and mutagenic action of 3200–4000 Å light. S. J. Webb and C. C. Tai, 727.
- Taylor, A.**  
The production of cochlodiol and a related metabolite by *Chaetomium* species. D. Brewer, W. A. Jerram, and A. Taylor, 861.
- Tershak, D. R.**  
Ultraviolet repair capabilities of *Agrobacterium tumefaciens*. D. M. Yajko and D. R. Tershak, 927.
- Thatcher, F. S.**  
Mycotoxins from food-borne fungi. W. van Walbeek, P. M. Scott, and F. S. Thatcher, 131.  
Experimental gas gangrene with food-poisoning *Clostridium perfringens* type A. A. H. W. Hauschild and F. S. Thatcher, 705.  
Nutritional requirements of mutants of *Escherichia coli* resistant to gamma irradiation. H. Robern and F. S. Thatcher, 711.  
Effect of *n*-fluorophenylalanine on radiation sensitivity in *Escherichia coli*. N. Dickie, D. A. Dennis, and F. S. Thatcher, 799.
- Tinland, R.**  
Influence de la température sur le développement du virus Sindbis et la production d'interféron en cultures cellulaires. M. Lab, R. Tinland et A. Kirn, 1211.
- Toennies, G.**  
New observations on the determination of bacterial lipid phosphorus. G. Toennies, D. N. Das, and F. Feng, 484.
- Turgeon, S.**  
Effects of exogenous purines on growth rates and other properties of *Staphylococcus aureus* strains including a pyrimidineless mutant of the Wood 46 strain. J. de Repentigny, L. G. Mathieu, S. Turgeon, and S. Sonea, 39.  
Thymineless death of *Staphylococcus aureus* and formation of its alpha toxin. L. G. Mathieu, J. de Repentigny, S. Turgeon, and S. Sonea, 983.
- Vaartaja, O.**  
*Pythium* and *Mortierella* in soils of Ontario forest nurseries. O. Vaartaja, 265.
- Van Baalen, C.**  
Phosphorus deficiency and phosphate uptake in the blue-green alga *Anacystis nidulans*. J. C. Batterton and C. Van Baalen, 341.
- VanDemark, P. J.**  
Ultrastructure and sites of tetranitro-blue tetrazolium reduction of *Lactobacillus casei*. J. P. Brown, M. R. Edwards, and P. J. VanDemark, 823.  
Respiration of *Lactobacillus casei*. J. P. Brown and P. J. VanDemark, 829.
- van der Scheer, C.**  
Cellular and extracellular structures in *Cryptococcus laurentii* and *Rhodotorula* species. J. Ruinen, M. H. Deinema, and C. van der Scheer, 1133.
- van Walbeek, W.**  
Mycotoxins from food-borne fungi. W. van Walbeek, P. M. Scott, and F. S. Thatcher, 131.
- Vas, S. I.**  
Effects of immunosuppressive drugs on secondary antibody response in vitro. F. C. Leung and S. I. Vas, 7.

- Vaughn, R. H.**  
Spontaneous spheroplast formation by *Desulfovibrio aestuarii*. R. E. Levin and R. H. Vaughn, 1271.
- Vedamuthu, E. R.**  
An evaluation of the taxonomy of *Propionibacterium*. A. C. Malik, G. W. Reinbold, and E. R. Vedamuthu, 1185.
- Vega, C. E.**  
Infection bactérienne à *Salmonella typhimurium* chez un invertébré, *Galleria mellonella* L. E. Kurstak et C. E. Vega, 233.
- Vezina, C.**  
11 $\alpha$ -Hydroxylation of steroids by spores of *Aspergillus ochraceus*. S. N. Sehgal, K. Singh, and C. Vezina, 529.
- Vidaver, A. K.**  
A purple-pigment-producing bean wilt bacterium, *Corynebacterium flaccumfaciens* var. *violaceum*, n. var. M. L. Schuster, A. K. Vidaver, and M. Mandel, 423.
- Vining, L. C.**  
Conversion of phenylalanine to tyrosine by microorganisms. P. Chandra and L. C. Vining, 573.  
Influence of nitrogen source on formation of chloramphenicol in cultures of *Streptomyces* sp. 3022a. D. W. S. Westlake, F. Sala, R. McGrath, and L. C. Vining, 587.
- Walker, J. L.**  
The effects of mutation and nucleic acid base analogues on the sensitivity of *E. coli* to partial dehydration. S. J. Webb and J. L. Walker, 557.  
The influence of cell water content on the inactivation of RNA by partial desiccation and ultraviolet light. S. J. Webb and J. L. Walker, 565.
- Wallace, R.**  
Spheroplasts of enteropathogenic *Escherichia coli*. I. Biological characteristics. B. B. Diena, R. Wallace, and L. Greenberg, 675.  
Spheroplasts of enteropathogenic *Escherichia coli*. II. Immunogenicity of spheroplast vaccines. B. B. Diena, R. Wallace, G. Bennis, and L. Greenberg, 679.  
The bentonite flocculation test in the serology of tuberculosis. I. Purification of BCG antigens. B. B. Diena, H. Yugi, R. Wallace, J. Carriere, and L. Greenberg, 881.  
The bentonite flocculation test in the serology of tuberculosis. II. Detection of tuberculosis in cattle. R. Wallace, J. Carriere, B. B. Diena, and L. Greenberg, 887.  
Mycobacterial antibody response in experimentally infected animals. J. Carriere, R. Wallace, B. Barrett, and B. B. Diena, 923.
- Wallen, V. R.**  
Serological differentiation of the *Ascochyta* species on peas. C. Madhosingh and V. R. Wallen, 449.
- Wang, C. H.**  
Utilization of fructose and glutamate by *Rhodospirillum rubrum*. M. S. Gibson and C. H. Wang, 493.
- Wang, C.-S.**  
A relationship between cell wall composition and mutant morphology in the basidiomycete *Schizophyllum commune*. C.-S. Wang, M. N. Schwalb, and P. G. Miles, 809.
- Wang, L.**  
Repression of thiaminase I by thiamine and related compounds in *Bacillus thiaminolyticus*. L. Wang, J. H. Wilkins, and R. L. Airth, 1143.
- Wardlaw, A. C.**  
The stability of the protective antigen and histamine-sensitizing factor of *Bordetella pertussis* to acid and alkali. C. M. Jakus, L. McClure, and A. C. Wardlaw, 147.  
Immunodiffusion and immunoelectrophoretic studies of reovirus antigens. W.-D. Leers, K. R. Rozee, and A. C. Wardlaw, 161.  
Intracerebral mouse protection test for pertussis vaccine. I. Apparent absence of humoral protective antibody under the usual test conditions. A. C. Wardlaw and C. M. Jakus, 989.
- Webb, P. M.**  
Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. P. M. Webb and L. H. Muschel, 545.
- Webb, S. J.**  
The effects of mutation and nucleic acid base analogues on the sensitivity of *E. coli* to partial dehydration. S. J. Webb and J. L. Walker, 557.  
The influence of cell water content on the inactivation of RNA by partial desiccation and ultraviolet light. S. J. Webb and J. L. Walker, 565.  
Lethal and mutagenic action of 3200-4000 Å light. S. J. Webb and C. C. Tai, 727.  
An infrared study of the influence of growth media and myo-inositol on structural changes in DNA induced by dehydration and ultraviolet light. S. J. Webb and M. D. Dumasia, 841.
- Weber, D. J.**  
Chemotaxonomic and ultrastructural studies on three species of *Tilletia* occurring on wheat. J. L. Laseter, W. M. Hess, J. D. Weete, D. L. Stocks, and D. J. Weber, 1149.
- Weete, J. D.**  
Chemotaxonomic and ultrastructural studies on three species of *Tilletia* occurring on wheat. J. L. Laseter, W. M. Hess, J. D. Weete, D. L. Stocks, and D. J. Weber, 1149.
- Weiss, K. F.**  
Amino acid content and elemental composition of selected strains of *Clostridium perfringens*. K. F. Weiss and D. H. Strong, 604.

- Wensley, R. N.**  
The effect of prewetting naturally infested soils on destruction of the muskmelon wilt fungus by formaldehyde. R. N. Wensley, 309.
- Westlake, D. W. S.**  
Influence of nitrogen source on formation of chloramphenicol in cultures of *Streptomyces* sp. 3022a. D. W. S. Westlake, F. Sala, R. McGrath, and L. C. Vining, 587.
- Westwood, J. C. N.**  
Immunodiffusion studies on the myxoviruses. I. The presence of influenza A/PR8 precipitins in the serum of some normal animals. C. M. Johnson and J. C. N. Westwood, 53.  
Immunofluorescence in the study of viruses in tissue culture. II. Development of an immunofluorescent cell assay for influenza (A/PR8) virus. S. A. Sattar and J. C. N. Westwood, 533.
- White, A.**  
Lysogeny in mycobacteria. I. Conversion of colony morphology, nitrate reductase activity, and Tween 80 hydrolysis of *Mycobacterium* sp. ATCC 607 associated with lysogeny. W. Jones and A. White, 551.
- Wicklow, D. T.**  
*Aspergillus fumigatus* Fresenius isolated from ornithogenic soil collected at Hallett Station, Antarctica. D. T. Wicklow, 717.
- Wiley, B. B.**  
Capsule size, coagulase production, and egg virulence among certain strains of *Staphylococcus aureus*. B. B. Wiley, 685.
- Wilkins, J. H.**  
Repression of thiaminase I by thiamine and related compounds in *Bacillus thiaminolyticus*. L. Wang, J. H. Wilkins, and R. L. Airth, 1143.
- Williams, F. D.**  
Rhizopterin biosynthesis in *Staphylococcus epidermidis*. L. P. Jones and F. D. Williams, 933.
- Williams, L. E.**  
Fungistatic properties of soils exposed to different antecedent environments. G. M. Willis and L. E. Williams, 755.
- Willis, C. B.**  
Effect of various nitrogen sources on growth of *Sclerotinia*. C. B. Willis, 1035.
- Willis, G. M.**  
Fungistatic properties of soils exposed to different antecedent environments. G. M. Willis and L. E. Williams, 755.
- Wilson, P. W.**  
Formation of the nitrogen-fixing enzyme system in *Azotobacter vinelandii*. G. W. Strandberg and P. W. Wilson, 25.  
Nitrogen fixation by cell-free extracts of *Klebsiella pneumoniae*. M. C. Mahl and P. W. Wilson, 33.
- Wilt, J. C.**  
The uptake of tritiated thymidine by human amnion cells: a correlation with cell structure. S. B. Hrushovetz, J. C. Wilt, and E. S. C. Lee, 791.
- Wiseman, G. M.**  
The nature of staphylococcal beta hemolysin. II. Effect on mammalian cells. G. M. Wiseman, 179.
- Wong, A.**  
Variation in susceptibility of chick embryo tissues to infection with Rous Sarcoma virus in vitro. R. Bather, A. Wong, and P. R. Sweeny, 1164.
- Woodbine, M.**  
Ascospore germination in *Byssoschlamys nivea*. A. R. Yates, A. Seaman, and M. Woodbine, 319.  
Erratum: Ascospore germination in *Byssoschlamys nivea*. A. R. Yates, A. Seaman, and M. Woodbine, 1013.
- Wooley, B. C.**  
A synthetic medium for germination, postgerminative development, and growth of spores of *Clostridium roseum*. B. C. Wooley and R. E. Collier, 173.
- Wu, R.-Y.**  
Phage Xp12 of *Xanthomonas oryzae* (Uyeda et Ishiyama) Dowson. T.-T. Kuo, T.-C. Huang, R.-Y. Wu, and C.-P. Chen, 1139.
- Yajko, D. M.**  
Ultraviolet repair capabilities of *Agrobacterium tumefaciens*. D. M. Yajko and D. R. Tershak, 927.
- Yamamoto, T.**  
Mitomycin C induction of a temperate phage in *Pseudomonas aeruginosa*. T. Yamamoto and C. T. Chow, 667.
- Yamanaka, K.**  
Production of polyol dehydrogenases in bacteria. K. Yamanaka and S. Sakai, 391.
- Yates, A. R.**  
Ascospore germination in *Byssoschlamys nivea*. A. R. Yates, A. Seaman, and M. Woodbine, 319.  
Erratum: Ascospore germination in *Byssoschlamys nivea*. A. R. Yates, A. Seaman, and M. Woodbine, 1013.
- Yeoh, H. T.**  
A microbial interaction involving combined mutualism and inhibition. H. T. Yeoh, H. R. Bungay, and N. R. Krieg, 491.
- Yugi, H.**  
The bentonite flocculation test in the serology of tuberculosis. I. Purification of BCG antigens. B. B. Diena, H. Yugi, R. Wallace, J. Carriere, and L. Greenberg, 881.



- Zamenhof, S.**  
"Steady-state" competence for bacterial transformation. H. H. Eichhorn, S. Arikawa, and S. Zamenhof, 290.
- Ziegler-Schlomowitz, R.**  
Inactivation of chloramphenicol by Gram-negative microorganisms. D. Sompolsky, R. Ziegler-Schlomowitz, and D. Herczog, 891.
- Zimmerman, L. N.**  
Catabolite repression and feedback inhibition of protease in *Streptococcus faecalis* var. *liquefaciens*. K. S. Sashital and L. N. Zimmerman, 1265.
- Zink, M. W.**  
Regulation of "malic" isozymes and malic dehydrogenases in *Neurospora crassa*. M. W. Zink and D. A. Shaw, 907.

### Date of Issue

The dates on which each number of this journal was issued in 1968 will be published on page *ii* of the January number of Volume 15 (Can. J. Microbiology, Vol. 15, No. 1, 1969).